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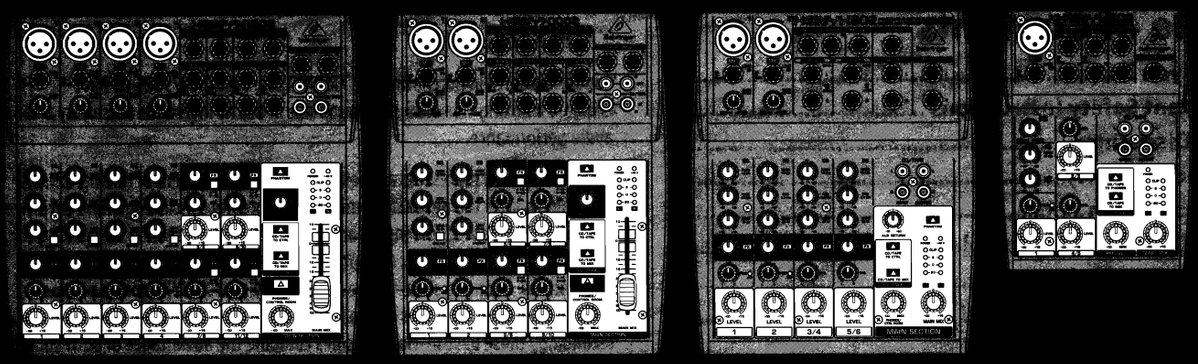

User Manual

XENYX 1202/1002/802/502

Premium 12/10/8/5-Input 2-Bus Mixer with XENYX Mic Preamp and British EQ

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A50-00000-29693

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Thank you

Congratulations! In purchasing our XENYX 1202/1002/802/502 you have acquired a mixing console whose small size belies its incredible versatility and audio performance.

The XENYX Series represents a milestone in the development of mixing console technology. With the new XENYX microphone preamps including phantom power as an option, balanced line inputs and a powerful effects section, the mixing consoles in the XENYX Series are optimally equipped for live and studio applications. Owing to state-of-the-art circuitry your XENYX console produces a warm analog sound that is unrivalled. With the addition of the latest digital technology these best-in-class consoles combine the advantages of both analog and digital technology.

EN Important Safety Instructions

CAUTION
RISK OF ELECTRIC SHOCK!
DO NOT OPEN!
ATTENTION
RISQUE DE CHOC ELECTRIQUE!
NE PAS OUVRIR!

Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock. Use only high-quality commercially-available speaker cables with ¼" TS plugs pre-installed. All other installation or modification should be performed only by qualified personnel.

This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.

This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.

Caution
To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside. Refer servicing to qualified personnel.

Caution
To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Caution
These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Use only attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.
16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

Legal Disclaimer

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Trident Chambers, Wickhams Cay, P.O. Box 146,
Road Town, Tortola, British Virgin Islands

Limited Warranty

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§ 1 Warranty

[1] This limited warranty is valid only if you purchased the product from a BEHRINGER authorized dealer in the country of purchase. A list of authorized dealers can be found on BEHRINGER's website behringer.com under "Where to Buy", or you can contact the BEHRINGER office closest to you.

[2] MUSIC Group* warrants the mechanical and electronic components of this product to be free of defects in material and workmanship if used under normal operating conditions for a period of one (1) year from the original date of purchase (see the Limited Warranty terms in § 4 below), unless a longer minimum warranty period is mandated by applicable local laws. If the product shows any defects within the specified warranty period and that defect is not excluded under § 4, MUSIC Group shall, at its discretion, either replace or repair the product using suitable new or reconditioned product or parts. In case MUSIC Group decides to replace the entire product, this limited warranty shall apply to the replacement product for the remaining initial warranty period, i.e., one (1) year (or otherwise applicable minimum warranty period) from the date of purchase of the original product.

[3] Upon validation of the warranty claim, the repaired or replacement product will be returned to the user freight prepaid by MUSIC Group.

[4] Warranty claims other than those indicated above are expressly excluded.

PLEASE RETAIN YOUR SALES RECEIPT. IT IS YOUR PROOF OF PURCHASE COVERING YOUR LIMITED WARRANTY. THIS LIMITED WARRANTY IS VOID WITHOUT SUCH PROOF OF PURCHASE.

§ 2 Online registration

Please do remember to register your new BEHRINGER equipment right after your purchase at behringer.com under "Support" and kindly read the terms and conditions of our limited warranty carefully. Registering your purchase and equipment with us helps us process your repair claims quicker and more efficiently. Thank you for your cooperation!

§ 3 Return materials authorization

[1] To obtain warranty service, please contact the retailer from whom the equipment was purchased. Should your BEHRINGER dealer not be located in your vicinity, you may contact the BEHRINGER distributor for your country listed under "Support" at behringer.com. If your country is not listed, please check if your problem can be dealt with by our "Online Support" which may also be found under "Support" at behringer.com. Alternatively, please submit an online warranty claim at behringer.com BEFORE returning the product. All inquiries must be accompanied by a description of the problem and the serial number of the product. After verifying the product's warranty eligibility with the original sales receipt, MUSIC Group will then issue a Return Materials Authorization ("RMA") number.

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[2] Subsequently, the product must be returned in its original shipping carton, together with the return authorization number to the address indicated by MUSIC Group.

[3] Shipments without freight prepaid will not be accepted.

§ 4 Warranty Exclusions

[1] This limited warranty does not cover consumable parts including, but not limited to, fuses and batteries. Where applicable, MUSIC Group warrants the valves or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase.

[2] This limited warranty does not cover the product if it has been electronically or mechanically modified in any way. If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national or local level, in any country which is not the country for which the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in materials or workmanship. This limited warranty does not cover any such modification/adaptation, regardless of whether it was carried out properly or not. Under the terms of this limited warranty, MUSIC Group shall not be held responsible for any cost resulting from such a modification/adaptation.

[3] This limited warranty covers only the product hardware. It does not cover technical assistance for hardware or software usage and it does not cover any software products whether or not contained in the product. Any such software is provided "AS IS" unless expressly provided for in any enclosed software limited warranty.

[4] This limited warranty is invalid if the factory-applied serial number has been altered or removed from the product.

[5] Free inspections and maintenance/repair work are expressly excluded from this limited warranty, in particular, if caused by improper handling of the product by the user. This also applies to defects caused by normal wear and tear, in particular, of faders, crossfaders, potentiometers, keys/buttons, guitar strings, illuminants and similar parts.

[6] Damage/defects caused by the following conditions are not covered by this limited warranty:

- improper handling, neglect or failure to operate the unit in compliance with the instructions given in BEHRINGER user or service manuals;
- connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used;
- damage/defects caused by acts of God/Nature (accident, fire, flood, etc) or any other condition that is beyond the control of MUSIC Group.

[7] Any repair or opening of the unit carried out by unauthorized personnel (user included) will void the limited warranty.

[8] If an inspection of the product by MUSIC Group shows that the defect in question is not covered by the limited warranty, the inspection costs are payable by the customer.

[9] Products which do not meet the terms of this limited warranty will be repaired exclusively at the buyer's expense. MUSIC Group or its authorized service center will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 6 weeks after notification, MUSIC Group will return the unit C.O.D. with a separate invoice for freight and packing. Such costs will also be invoiced separately when the buyer has sent in a written repair order.

[10] Authorized BEHRINGER dealers do not sell new products directly in online auctions. Purchases made through an online auction are on a "buyer beware" basis. Online auction confirmations or sales receipts are not accepted for warranty verification and MUSIC Group will not repair or replace any product purchased through an online auction.

§ 5 Warranty transferability

This limited warranty is extended exclusively to the original buyer (customer of authorized retail dealer) and is not transferable to anyone who may subsequently purchase this product. No other person (retail dealer, etc.) shall be entitled to give any warranty promise on behalf of MUSIC Group.

§ 6 Claim for damage

Subject only to the operation of mandatory applicable local laws, MUSIC Group shall have no liability to the buyer under this warranty for any consequential or indirect loss or damage of any kind. In no event shall the liability of MUSIC Group under this limited warranty exceed the invoiced value of the product.

§ 7 Limitation of liability

This limited warranty is the complete and exclusive warranty between you and MUSIC Group. It supersedes all other written or oral communications related to this product. MUSIC Group provides no other warranties for this product.

§ 8 Other warranty rights and national law

[1] This limited warranty does not exclude or limit the buyer's statutory rights as a consumer in any way.

[2] The limited warranty regulations mentioned herein are applicable unless they constitute an infringement of applicable mandatory local laws.

[3] This warranty does not detract from the seller's obligations in regard to any lack of conformity of the product and any hidden defect.

§ 9 Amendment

Warranty service conditions are subject to change without notice. For the latest warranty terms and conditions and additional information regarding MUSIC Group's limited warranty, please see complete details online at behringer.com.

* MUSIC Group Macao Commercial Offshore Limited of Rue de Pequim No. 202-A, Macau Finance Centre 9/J, Macau, including all MUSIC Group companies

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1. Introduction

XENYX Mic Preamps

The microphone channels feature high-end XENYX Mic Preamps that compare well with costly outboard preamps in terms of sound quality and dynamics and boast the following features:

- 130 dB dynamic range for an incredible amount of headroom
- A bandwidth ranging from below 10 Hz to over 200 kHz for crystal-clear reproduction of even the finest nuances
- The extremely low-noise and distortion-free circuitry guarantees absolutely natural and transparent signal reproduction
- They are perfectly matched to every conceivable microphone with up to 60 dB gain and +48 volt phantom power supply
- They enable you to use the greatly extended dynamic range of your 24-bit/192-kHz HD recorder to the full, thereby maintaining optimal audio quality

"British EQ"

The equalizers used for the XENYX Series are based on the legendary circuitry of top-notch consoles made in Britain, which are renowned throughout the world for their incredibly warm and musical sound character. Even with extreme gain settings these equalizers ensure outstanding audio properties.

Caution!

◊ **We should like to draw your attention to the fact that extreme volumes may damage your hearing and/or your headphones or loudspeakers. Turn the MAIN MIX control and PHONES control in the main section fully counter-clockwise before you switch on the unit. Always be careful to set appropriate volume levels.**

Important notes concerning installation

◊ **The sound quality may diminish within the range of powerful broadcasting stations and high-frequency sources. Increase the distance between the transmitter and the device and use shielded cables for all connections.**

1.1 General mixing console functions

A mixing console fulfils three main functions:

- **Signal processing:** Preamplification, level adjustment, mixing of effects, frequency equalization.
- **Signal distribution:** Summing of signals to the aux sends for effects processing and monitor mix, distribution to one or several recording tracks, power amp(s), control room and 2-track outputs.
- **Mix:** Setting the volume level, frequency distribution and positioning of the individual signals in the stereo field, level control of the total mix to match the recording devices/crossover/power amplifier(s). All other mixer functions can be included in this main function.

The interface of BEHRINGER mixing consoles is optimized for these tasks enabling you to easily keep track of the signal path.

1.2 The user's manual

The user's manual is designed to give you both an overview of the controls, as well as detailed information on how to use them. In order to help you understand the links between the controls, we have arranged them in groups according to their function. The illustrations at the beginning of each chapter show the controls described in each respective chapter.

◊ **The block diagram supplied with the mixing console gives you an overview of the connections between the inputs and outputs, as well as the associated switches and controls.**

For the moment, just try and trace the signal path from the microphone input to the FX send connector. Don't be put off by the huge range of possibilities; it's easier than you think! If you look at the overview of the controls at the same time, you'll be able to quickly familiarize yourself with your mixing console and you'll soon be making the most of all its many possibilities.

If you need to know more about specific issues, please visit our website at http://behringer.com, where you'll find explanations of (for example) effects and dynamics applications.

1.3 Before you get started

1.3.1 Shipment

Your mixing console was carefully packed in the factory to guarantee safe transport. Nevertheless, we recommend that you carefully examine the packaging and its contents for any signs of physical damage, which may have occurred during transit.

◊ **If the unit is damaged, please do NOT return it to us, but notify your dealer and the shipping company immediately, otherwise claims for damage or replacement may not be granted.**

1.3.2 Initial operation

Be sure that there is enough space around the unit for cooling purposes and to avoid over-heating please do not place your mixing console on high-temperature devices such as radiators or power amps. The console is connected to the mains via the supplied cable. The console meets the required safety standards. Blown fuses must only be replaced by fuses of the same type and rating.

◊ **Never connect the XENYX to the power supply unit when the latter is connected to the mains! First connect the power supply unit to the console, then connect the power supply unit to the mains.**

◊ **Please note that all units must be properly grounded. For your own safety, you should never remove any ground connectors from electrical devices or power cables, or render them inoperative.**

◊ **Please ensure that only qualified people install and operate the mixing console. During installation and operation, the user must have sufficient electrical contact to earth, otherwise electrostatic discharges might affect the operation of the unit.**

1.3.3 Online Registration

Please register your new BEHRINGER equipment right after your purchase by visiting http://behringer.com and read the terms and conditions of our warranty carefully.

Should your BEHRINGER product malfunction, it is our intention to have it repaired as quickly as possible. To arrange for warranty service, please contact the BEHRINGER retailer from whom the equipment was purchased. Should your BEHRINGER dealer not be located in your vicinity, you may directly contact one of our subsidiaries. Corresponding contact information is included in the original equipment packaging (Global Contact Information/European Contact Information). Should your country not be listed, please contact the distributor nearest you. A list of distributors can be found in the support area of our website (http://behringer.com).

Registering your purchase and equipment with us helps us process your repair claims more quickly and efficiently.

Thank you for your cooperation!

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2. Control Elements and Connectors

This chapter describes the various control elements of your mixing console. All controls, switches and connectors will be discussed in detail.

2.1 Mono channels

2.1.1 Microphone and line inputs

MIC

Each mono input channel offers a balanced microphone input via the XLR connector and also features switchable +48 V phantom power supply for condenser microphones. The XENYX preamps provide undistorted and noise-free gain as is typically known only from costly outboard preamps.

◊ **Please mute your playback system before you activate the phantom power supply to prevent switch-on thumps being directed to your loudspeakers. Please also note the instructions in chapter 2.3.5 "Phantom power and LED displays".**

Fig. 2.1: Connectors and controls of mic/line inputs

LINE IN

Each mono input also features a balanced line input on a ¼" connector. Unbalanced devices (mono jacks) can also be connected to these inputs.

◊ **Please remember that you can only use either the microphone or the line input of a channel at any one time. You can never use both simultaneously!**

GAIN

Use the **GAIN** control to adjust the input gain. This control should always be turned fully counterclockwise whenever you connect or disconnect a signal source to one of the inputs.

2.1.2 Equalizer

All mono input channels include a 3-band equalizer, except for the 502, which is equipped with a 2-band EQ. All bands provide boost or cut of up to 15 dB. In the central position, the equalizer is inactive.

The circuitry of the British EQs is based on the technology used in the best-known top-of-the-line consoles and providing a warm sound without any unwanted side effects. The result are extremely musical equalizers which, unlike simple equalizers, cause no side effects such as phase shifting or bandwidth limitation, even with extreme gain settings of ±15 dB.

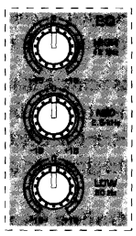

Fig. 2.2: The equalizer of the mono input channels

EQ

The upper (HI) and the lower band (LO) are shelving filters that increase or decrease all frequencies above or below their cut-off frequency. The cut-off frequencies of the upper and lower band are 12 kHz and 80 Hz respectively. The mid band (802/1002/1202) is configured as a peak filter with a center frequency of 2.5 kHz.

LOW CUT

In addition, the mono channels (1002 and 1202) are equipped with a steep **LOW CUT** filter (slope at 18 dB/oct., -3 dB at 75 Hz) designed to eliminate unwanted low-frequency signal components.

2.1.3 FX sends, panorama and level adjustment

FX (802/1002/1202 only)

FX sends (or AUX sends) enable you to feed signals via a variable control from one or more channels and sum these signals to a bus. The bus appears at the console's FX send output and can be fed from there to an external effects device. The return from the effects unit is then brought back into the console on the aux return connectors (802) or normal channel inputs. Each FX send is mono and features up to +15 dB gain.

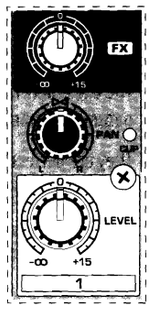

Fig. 2.3: The FX send/ panorama/level controls

As the name suggests, the FX sends of the XENYX mixing consoles are intended to drive effects devices (reverb, delay, etc) and are therefore configured post-fader. This means that the mix between dry signal and effect remains at the level determined by the channel's aux send, irrespective of the channel fader setting. If this were not the case, the effects signal of the channel would remain audible even when the fader is lowered to zero.

PAN

The **PAN** control determines the position of the channel signal within the stereo image. This control features a constant-power characteristic, which means the signal is always maintained at a constant level, irrespective of position in the stereo panorama.

LEVEL

The **LEVEL** control determines the level of the channel signal in the main mix.

CLIP

The **CLIP** LED's of the mono channels illuminate when the input signal is driven too high, which could cause distortion. If this happens, use the GAIN control to reduce the preamp level until the LED does not light anymore.

2.2 Stereo channels

2.2.1 Stereo line inputs

LINE IN

Each stereo channel has two balanced line level inputs on ¼" jacks for left and right channels. If only the jack marked "L" (left) is used, the channel operates in mono. The stereo channels are designed to handle typical line level signals.

Both inputs will also accept unbalanced jacks.

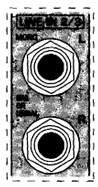

Fig. 2.4: Stereo line inputs

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2.2.2 Equalizer stereo channels (802)

The XENYX 802 features a stereo 3-band EQ in each stereo channel. The filter characteristics and cut-off frequencies are the same as those in the mono channels.

A stereo EQ is highly preferable to two mono equalizers. when working on a stereo signal, as two separate EQ's will usually produce an unwanted discrepancy between the left and right channels.

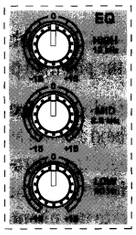

Fig. 2.5: The equalizer of the stereo input channels

2.2.3 FX sends, balance and level adjustment

FX

The **FX** sends of the stereo channels function similar to those of the mono channels. However, since the FX send buses are both mono, a mono sum is first taken from the stereo input before it is sent to the FX bus. The 502 is not equipped with FXsends.

BAL

The **BAL**(ANCE) control determines the levels of left and right input signals relative to each other before both signals are then routed to the main stereo mix bus. If a channel is operated in mono via the left line input, this control has the same function as the PAN control used in the mono channels.

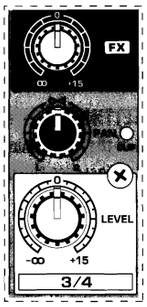

Fig. 2.6: The FX send/balance/ level controls

LEVEL

The **LEVEL** control determines the volume of the channel being sent to the main mix.

+4/-10

The stereo inputs of the XENYX 1002 and 1202 have an input sensitivity switch which selects between **+4 dBu** and **-10 dBV**. At -10 dBV (home-recording level), the input is more sensitive (requires less level to drive it) than at +4 dBu (studio level).

2.3 Connector panel and main section

2.3.1 Send/return effects path

STEREO AUX RETURN

802 only: the **STEREO AUX RETURN** connectors are used to bring the output of the external effects device (whose input is derived from the aux sends) back into the console. You can instead use these connectors as additional inputs, but any effects device will then have to be brought back into the console via a normal stereo channel. This does, however, give you the ability to use the channel EQ on the effects return signal if you wish.

Fig. 2.7: FX send/return connectors

◊ **When using a stereo channel as effects return path, the FX control of the relevant channel should generally be turned fully down to avoid undesirable feedback.**

Fig. 2.8: FX send/return controls

If only the left connector is used, the AUX RETURN automatically operates in mono. Use the **AUX RETURN** control to determine how much of the effects signal is sent to the main mix.

FX SEND

The **FX SEND** output (does not apply for 502) should be connected to the input of an external effects unit. The post-fader FX signal you created using the input channel FX controls is sent to the effects unit via the **FX SEND** ouput. Use the **FX SEND** control of the main section to adjust the overall send level (1002 and 1202 only).

2.3.2 Monitor and main mix

PHONES/CONTROL ROOM

The stereo **PHONES** jack (at the top of the connector panel) is where you connect headphones. The unbalanced **CTRL ROOM OUT** jacks carry the summed effects and main mix signals, as well as soloed channel signals. The PHONES/CONTROL ROOM control adjusts the level of both headphones and main monitor outputs. The 502 is not equipped with control room outputs.

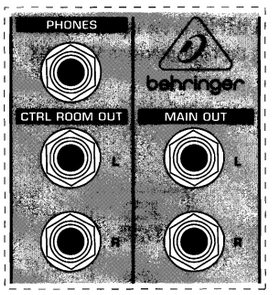

Fig. 2.9: Monitor/main mix connectors

MAIN MIX

The **MAIN OUT** connectors are unbalanced mono jacks. The main mix signal appears here at a level of 0 dBu. The **MAIN MIX** fader adjusts the volume of these outputs. The XENYX 802 and 502 mixing consoles feature a rotary control for this purpose.

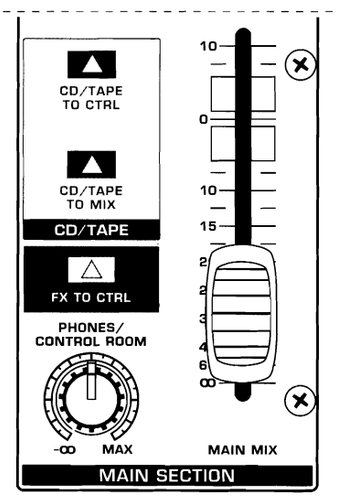

Fig. 2.10: Monitor control and main mix fader

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2.3.3 CD/Tape connectors

CD/TAPE INPUT

The **CD/TAPE INPUT**s are used to bring an external signal source (e.g. CD player, tape deck, etc.) into the console. They can also be used as a standard stereo line input, so the output of a second XENYX or BEHRINGER ULTRALINK PRO MX882 can be connected.

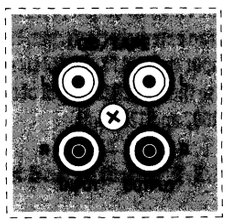


Fig. 2.11: CD/Tape input/output

Alternatively the line or tape output of a hi-fi amplifier with source selection switch could also be hooked up here, allowing you to easily listen to additional sources.

CD/TAPE OUTPUT

These connectors are wired in parallel with the MAIN OUT and carry the main mix signal (unbalanced). Connect the **CD/TAPE OUTPUT** to the inputs of your recording device. The output level is adjusted via the high-precision MAIN MIX fader or rotary control (802).

2.3.4 Signal assignment

CD/TAPE TO MIX

When the **TAPE TO MIX** switch is depressed, the 2-track input is assigned to the main mix providing an additional input for tape machines, MIDI instruments or other signal sources that do not require any processing.

Fig. 2.12: Assignment switches of the main section

CD/TAPE TO CTRL ROOM (502: CD/TAPE TO PHONES)

Press the **CD/TAPE TO CTRL ROOM/PHONES** switch if you want to monitor the 2-track input via the CTRL ROOM OUT. This provides an easy way to monitor signals coming back from tape to ensure that they are recording correctly.

◊ **If you are recording a signal via the CD/TAPE OUTPUT and wish to listen to this simultaneously via the CD/TAPE INPUT, do not use the CD/TAPE TO MIX switch. Doing this would create a feedback loop, since the signal would be routed, via the main mix, back to tape via the CD/TAPE OUTPUT. To monitor the CD/TAPE INPUT, use the CD/TAPE TO CTRL ROOM switch to assign the tape signal to the monitor(s) or headphones. This will avoid the tape signal being routed to the CD/TAPE OUTPUT.**

FX TO CTRL ROOM

If you want to monitor only the FX send signal in your headphones or monitor speaker(s), press the **FX TO CTRL** switch. This mutes the main mix signal while routing the FX SEND output to the monitor(s). The XENYX 802 and 502 do not feature this switch.

2.3.5 Phantom power and LED displays

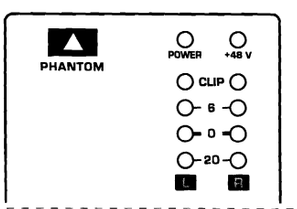


Fig. 2.13: Phantom power and control LEDs

+48 V

The red **+48 V** LED lights up when phantom power is on. The **PHANTOM** switch activates the phantom power supply on the XLR connectors of all mono channels.

◊ **Please do not connect microphones to the mixer (or the stagebox/ wallbox) as long as the phantom power supply is switched on. Connect the micro-phones before you switch on the power supply. In addition, the monitor/PA loudspeakers should be muted before you activate the phantom power supply. After switching on, wait approx. one minute in order to allow system stabilization.**

POWER

The blue **POWER** LED indicates that the console is powered on.

Level indicator

The high-precision 4-segment display accurately displays the relevant signal level.

LEVEL SETTING: To correctly set the gains of the channels, first set the LEVEL controls of the input channels to their center positions (0 dB). Then use the GAIN controls to increase the input amplification until signal peaks show 0 dB on the level meter.

When recording to digital recorders, the recorder's peak meter should not go into overload. While analog recorders can be overloaded to some extent, creating only a certain amount of distortion (which is common and often desirable), digital recorders distort quickly when overloaded. In addition, digital distortion is not only undesirable, but also renders your recording completely useless.

◊ **The peak meters of your XENYX display the level virtually independent of frequency. A recording level of 0 dB is recommended for all signal types.**

3. Installation

3.1 Mains connection

AC POWER IN

Connect the power supply to the 3-pin mains connector on the rear of the console. Use the AC adapter supplied to connect the console to the mains. The adapter complies with all applicable safety standards.

◊ **Please use only the power supply unit provided with the console.**

◊ **Never connect the XENYX to the power supply unit while the latter is connected to the mains! First connect the console to the power supply unit, then connect the power supply unit to the mains.**

◊ **Please note that both the power supply unit and the mixing console heat up considerably during operation. This is completely normal.**

3.2 Audio connections

You will need a large number of cables for different applications. The illustrations below show how the connectors should be wired. Be sure to use only high-grade cables.

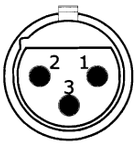
Please use commercial RCA cables to connect the 2-track inputs and outputs.

You can, of course, also connect unbalanced devices to the balanced inputs/ outputs. To do this, use either mono plugs or stereo plugs with the ring and sleeve bridged (pins 1 and 3 in the case of XLR connectors).

◊ **Caution! Never use unbalanced XLR connectors (PIN 1 and 3 connected) on the MIC input connectors when using the phantom power supply.**

EN

Balanced use with XLR connectors



input

1 = ground/shield
2 = hot (+ve)
3 = cold (-ve)

output

For unbalanced use, pin 1 and pin 3 have to be bridged

Fig. 3.1: XLR connections

Unbalanced ¼" TS connector

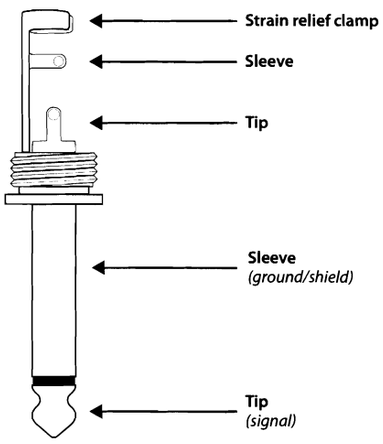
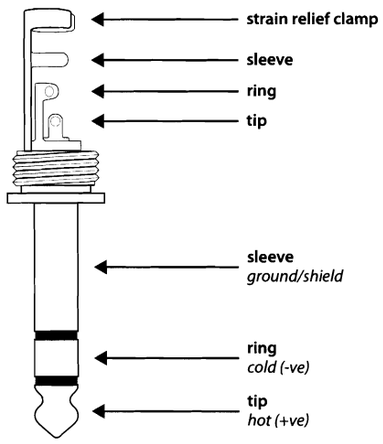


Fig. 3.2: ¼" mono plug

Balanced ¼" TRS connector



For connection of balanced and unbalanced plugs, ring and sleeve have to be bridged at the stereo plug.

Fig. 3.3: ¼" stereo plug

¼" TRS headphones connector

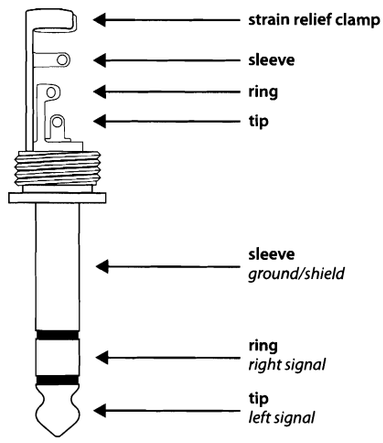


Fig. 3.4: Stereo plug for headphones connection

EN

4. Specifications

Mono Inputs

Microphone inputs (XENYX Mic preamp)

Type	XLR connector, electronically balanced, discrete input circuit

Mic E.I.N.[1] (20 Hz - 20 kHz)

@ 0 Ω source resistance	-134 dB / 135.7 dB A-weighted
@ 50 Ω source resistance	-131 dB / 133.3 dB A-weighted
@ 150 Ω source resistance	-129 dB / 130.5 dB A-weighted

Frequency response

<10 Hz - 150 kHz	-1 dB
<10 Hz - 200 kHz	-3 dB
Gain range	+10 dB to +60 dB
Max. input level	+12 dBu @ +10 dB GAIN
Impedance	approx. 2.6 kΩ balanced
Signal-to-noise ratio	110 dB / 112 dB A-weighted (0 dBu In @ +22 dB GAIN)
Distortion (THD+N)	0.005% / 0.004% A-weighted

Line input

Type	¼" TRS jack, electronically balanced
Impedance	approx. 20 kΩ balanced, approx. 10 kΩ unbalanced
Gain range	-10 dB to +40 dB
Max. input level	+22 dBu @ 0 dB GAIN

Fade-out attenuation[2] (Crosstalk attenuation)

Main fader closed	90 dB
Channel muted	89.5 dB
Channel fader muted	89 dB

Frequency response (Mic In → Main Out)

<10 Hz - 90 kHz	+0 dB / -1 dB
<10 Hz - 160 kHz	+0 dB / -3 dB

Stereo inputs

Type	¼" TRS jack, electronically balanced
Impedance	approx. 20 kΩ
Max. input level	+22 dBu

Equalizer

EQ mono channels

LOW	80 Hz / ±15 dB
MID	2.5 kHz / ±15 dB
HIGH	12 kHz / ±15 dB

EQ stereo channels

LOW	80 Hz / ±15 dB
MID	2.5 kHz / ±15 dB
HIGH	12 kHz / ±15 dB

Send/Return

Aux sends

Type	¼" TS jack, unbalanced
Impedance	approx. 120 Ω
Max. output level	+22 dBu

Stereo aux returns

Type	¼" TRS jack, electronically balanced
Impedance	approx. 20 kΩ balanced / approx. 10 kΩ unbalanced
Max. input level	+22 dBu

Outputs

Main outputs

Type	¼" TRS jack, unbalanced
Impedance	approx. 120 Ω unbalanced
Max. output level	+22 dBu

Control room outputs

Type	¼" TS jack, unbalanced
Impedance	approx. 120 Ω
Max. output level	+22 dBu

Headphones output

Type	¼" TRS jack, unbalanced
Max. output level	+19 dBu / 150 Ω (+25 dBm)

Main mix system data[3] (Noise)

Main mix @ -∞, channel fader @ -∞	-106 dB / -109 dB A-weighted
Main mix @ 0 dB, channel fader @ -∞	-95 dB / -98 dB A-weighted
Main mix @ 0 dB, channel fader @ 0 dB	-84 dB / -87 dB A-weighted

Power Supply

502/802/1002

Power consumption	13 W
USA/Canada	
Adapter	BEHRINGER PSU MX3UL
Mains voltage	120 V~, 60 Hz
Europe/U.K./Australia	
Adapter	BEHRINGER PSU MX3EU
Mains voltage	230 V~, 50 Hz
China	
Adapter	BEHRINGER PSU MX3CC
Input	220 V~ 50 Hz; 80 mA
Output	2 x 18.5 V~, 2 x 150 mA
Korea	
Adapter	BEHRINGER PSU MX3KR
Mains voltage	220 V~, 60 Hz
Japan	
Adapter	BEHRINGER PSU MX3JP
Mains voltage	100 V~, 50/60 Hz

1202

Power consumption	20 W
USA/Canada	
Adapter	BEHRINGER PSU MX5UL
Mains voltage	120 V~, 60 Hz
Europe/U.K./Australia	
Adapter	BEHRINGER PSU MX5EU
Mains voltage	230 V~, 50 Hz
China	
Adapter	BEHRINGER PSU MX5CC
Input	220 V~ 50 Hz; 150 mA
Output	2 x 17.5 V~, 2 x 650 mA
Korea	
Adapter	BEHRINGER PSU MX5KR
Mains voltage	220 V~, 60 Hz
Japan	
Adapter	BEHRINGER PSU MX5JP
Mains voltage	100 V~, 50/60 Hz

Physical/Weight

502

Dimensions (H x W x D)	1.9" / 1.5 x 5.3 x 7" 47 mm / 37 x 134 x 177 mm
Weight (net)	1.2 lbs / 0.55 kg

802

Dimensions (H x W x D)	1.9" / 1.5 x 7.4 x 8.7" 47 mm / 37 x 189 x 220 mm
Weight (net)	2.2 lbs / 1.00 kg

1002

Dimensions (H x W x D)	1.9" / 1.5 x 7.4 x 8.7" 47 mm / 37 x 189 x 220 mm
Weight (net)	2.3 lbs / 1.05 kg

1202

Dimensions (H x W x D)	1.9" / 1.5 x 9.5 x 8.7" 47 mm / 37 x 242 x 220 mm
Weight (net)	3 lbs / 1.35 kg

[1] Equivalent Input Noise

[2] Measuring conditions: 1 kHz rel. to 0 dBu; 20 Hz - 20 kHz; line input; main output; unity gain.

[3] 20 Hz - 20 kHz; measured at main output. Channels 1 - 4 unity gain; EQ flat; all channels on main mix; channels 1/3 as far left as possible; channels 2/4 as far right as possible; reference = +6 dBu.

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